

DMM Comparison Table

MODEL	BASIC PERFORMANCE							HIGH SPEED, HIGH ACCURACY		HIGH ACCURACY			MULTI-CHANNEL MEASUREMENT					MODEL
	DMM4020	2110	2100	DMM4040	DMM4050	2000	DMM6500	DMM7510	DMM7512	2010	2001	2002	2700	2701	DAQ6510	2750	3706A	
Display	VFD, 2 line	LCD 2 line	VFD 2 line	VFD, dot matrix	VFD, dot matrix	VFD	Touchscreen, 5 in. (12.7 cm)	Touchscreen, 5 in. (12.7 cm)	None	VFD	VFD	VFD	VFD	VFD	Touchscreen, 5 in. (12.7 cm)	VFD	VFD 2 line	Display
Digits	5½	5½	6½	6½	6½	6½	6½	7½	7½	7½	7½	8½	6½	6½	6½	6½	7½	Digits
No. Measurement Channels	1	1	1	1	1	10	10	1	2	10	10	10	80	80	80	200	576	No. Measurement Channels
DC VOLTS																		
Measurement Range	1 µV–1000 V	1 µV–1000 V	0.1 µV–1000 V	100 nV–1000 V	100 nV–1000 V	100 nV–1000 V	100 nV–1000 V	10 nV–1010 V	10 nV–1010 V	10 nV–1000 V	10 nV–1100 V	1 nV–1100 V	100 nV–1000 V	100 nV–1000 V	100 nV–1000 V	100 nV–1000 V	10 nV–300 V	Measurement Range
Basic Accuracy	0.015%	0.012%	0.0038%	0.0035%	0.0024%	0.003%	0.0025%	0.0014%	0.0014%	0.0024%	0.0024%	0.001%	0.003%	0.003%	0.0025%	0.003%	0.0025%	Basic Accuracy
Ratio			✓	✓	✓		✓	✓	✓	✓	Option	Option	w/MUX card	w/MUX card	w/MUX card	w/MUX card		Ratio
DC Peak Spikes				✓	✓		✓	✓	✓	✓	✓	✓						DC Peak Spikes
AC VOLTS (TRMS)																		
Measurement Range	1 µV–750 V	1 µV–750 V	0.1 µV–750 V	100 nV–1000 V	100 nV–1000 V	100 nV–750 V	100 nV–750 V	100 nV–707 V		100 nV–750 V	100 nV–775 V	100 nV–775 V	100 nV–750 V	100 nV–750 V	100 nV–750 V	100 nV–750 V	100 nV–300 V	Measurement Range
Basic Accuracy	0.2%	0.12%	0.08%	0.12%	0.12%	0.05%	0.05%	0.06%		0.05%	0.03%	0.02%	0.06%	0.06%	0.05%	0.06%	0.05%	Basic Accuracy
Bandwidth	20 Hz–100 kHz	10 Hz–300 kHz	3 Hz–300 kHz	3 Hz–300 kHz	3 Hz–300 kHz	3 Hz–300 kHz	3 Hz–300 kHz	3 Hz to 300 kHz		3 Hz–300 kHz	1 Hz–2 MHz	1 Hz–2 MHz	3 Hz–300 kHz	3 Hz–300 kHz	3 Hz–300 kHz	3 Hz–300 kHz	3 Hz–300 kHz	Bandwidth
dB, dBm	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓					✓	dB, dBm
Frequency, Period	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	Frequency, Period
OHMS (2/4 WIRE)																		
Measurement Range	1 mΩ–100 MΩ	1 mΩ–100 MΩ	100 µΩ–100 MΩ	10 µΩ–1 GΩ	10 µΩ–1 GΩ	100 µΩ–120 MΩ	1 µΩ–120 MΩ	0.1 µΩ–1.2 GΩ	0.1 µΩ–1.2 GΩ	1 µΩ–120 MΩ	1 µΩ–1 GΩ	100 nΩ–1 GΩ	100 µΩ–120 MΩ	100 µΩ–120 MΩ	1 µΩ–120 MΩ	1 µΩ–120 MΩ	100 nΩ–100 MΩ	Measurement Range
Basic Accuracy	0.02%	0.02%	0.015%	0.01%	0.01%	0.008%	0.0075%	0.0024%	0.0024%	0.0032%	0.0032%	0.0007%	0.008%	0.008%	0.0075%	0.008%	0.004%	Basic Accuracy
Continuity Test	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	Continuity Test
Diode Test	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	Diode Test
Offset Compensation							✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	Offset Compensation
Dry Circuit							✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	Dry Circuit
DC AMPS																		
Measurement Range	1 nA–10 A	0.1 µA–10 A	10 nA–3 A	100 pA–10 A	100 pA–10 A	10 nA–3 A	10 pA–10 A	1 pA–10.1 A	1 pA–3 A	1 nA–3 A	10 pA–2 A	10 pA–2 A	10 nA–3 A	10 nA–3 A	10 pA–3 A	10 nA–3 A	1 pA–3 A	Measurement Range
Basic Accuracy	0.02%	0.15%	0.055%	0.05%	0.05%	0.03%	0.02%	0.006%	0.006%	0.03%	0.03%	0.027%	0.03%	0.03%	0.02%	0.03%	0.03%	Basic Accuracy
In Circuit Current											✓	✓						In Circuit Current
AC AMPS (TRMS)																		
Measurement Range	0.1 µA–10 A	10 µA–10 A	1 µA–3 A	100 pA–10 A	100 pA–10 A	1 µA–3 A	100 pA–10 A	1 nA–10.1 A		1 µA–3 A	100 pA–2 A	100 pA–2 A	1 µA–3 A	1 µA–3 A	100 pA–3 A	1 µA–3 A	1 nA–3 A	Measurement Range
Basic Accuracy	0.3%	0.3%	0.15%	0.1%	0.1%	0.1%	0.1%	0.08%		0.1%	0.1%	0.1%	0.15%	0.16%	0.10%	0.15%	0.08%	Basic Accuracy
Bandwidth	20 Hz–2 kHz	10 Hz–5 kHz	3 Hz–5 kHz	3 Hz–10 kHz	3 Hz–10 kHz	3 Hz–5 kHz	3 Hz–10 kHz	3 Hz to 10 kHz		3 Hz–5 kHz	20 Hz–100 kHz	20 Hz–100 kHz	3 Hz–5 kHz	3 Hz–5 kHz	3 Hz–10 kHz	3 Hz–5 kHz	3 Hz–10 kHz	Bandwidth
OTHER MEASUREMENTS																		
Capacitance					1 pF–100 µF		0.1 pF–100 µF	0.1 pF–100 µF							0.1 pF–100 µF			Capacitance
Temperature Measurement		TC, RTD, Thermistor	RTD		TC	TC	TC, RTD, Thermistor	TC, RTD, Thermistor	TC, RTD, Thermistor	TC, RTD	TC, RTD	TC, RTD	TC, RTD, Thermistor	TC, RTD, Thermistor	TC, RTD, Thermistor	TC, RTD, Thermistor	TC, RTD, Thermistor	Temperature Measurement
GENERAL FEATURES																		
Interface	RS-232, USB with adapter cable	USB, GPIB (opt.)	USB	LAN, GPIB, RS-232, USB with adapter cable	LAN, GPIB, RS-232, USB with adapter cable	GPIB, RS-232	LAN/LXI, USB, GPIB (opt.), RS-232 (opt.)	GPIB, USB, LAN/LXI	USB, LAN/LXI	GPIB, RS-232	GPIB	GPIB	GPIB, RS-232	LAN, RS-232	LAN/LXI, USB, GPIB (opt.), RS-232 (opt.)	GPIB, RS-232	GPIB, LAN/LXI, USB	Interface
Reading Hold	✓	✓	✓			✓				✓			✓	✓				Reading Hold
Digital I/O		Trigger In Meter Complete	Trigger In Meter Complete			Trigger In Meter Complete	Trigger In Meter Complete	Trigger In Meter Complete 6 General I/O	Trigger In Meter Complete 6 General I/O	Trigger In Meter Complete	Trigger In Meter Complete 1 In, 4 Out	Trigger In Meter Complete 1 In, 4 Out	2 Trigger In, 5 Limit Out	2 Trigger In, 5 Limit Out	Trigger In Meter Complete	2 Trigger In, 5 Limit Out	14 General I/O	Digital I/O
Reading Memory		2000 rdg.	2000 rdg.			1024 rdg.	7 M rdg.	27.5 M rdg.	27.5 M rdg./channel	1024 rdg.	Opt to 30,000	Opt to 30,000	55,000 rdg.	450,000 rdg.	7 M rdg.	110,000 rdg.	650,000 rdg.	Reading Memory
Maximum Speed		50K rdg/s	2000 rdg/s			2000 rdg/s	1 M rdg/s (16-bit digitizing)	1 M rdg/s (18-bit digitizing)	1 M rdg/s (18-bit digitizing)	2000 rdg/s	2000 rdg/s	2000 r dg/s	2000 rdg/s	3500 rdg/s	1 M rdg/s (16-bit digitizing)	2500 rdg/s	>14,000 rdg/s	Maximum Speed
Other	Dual Measurement Display				Dual Measurement Display		Embedded Test Script Processor and optional TSP-Link, 6 Digital I/O with Interface Options, Dual Measurement Display	Embedded Test Script Processor and TSP-LINK	Embedded Test Script Processor and TSP-LINK, 2 Digitizers						Embedded Test Script Processor and optional TSP-Link, 6 Digital I/O with Interface Options		Embedded Test Script Processor and TSP-LINK	

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